CLAIMS

1. A thin analysis tool comprising a reaction space for holding a sample liquid,

   wherein the reaction space is provided with a reagent portion that dissolves when the sample liquid is held in the space, and

   wherein part of the reaction space is defined by first and second surfaces facing each other, the first and the second surfaces being spaced from each other by a facing distance that is no greater than 45 μm.

2. The thin analysis tool according to Claim 1, further comprising first and second plates facing each other and disposed apart from each other to define the reaction space,

   wherein the first and second surfaces extend in a direction perpendicular to a thickness direction of the first and second plates.

3. The thin analysis tool according to Claim 2, further comprising first and second electrodes that are provided on one side of the first plate, face at least partially the reaction space, and are utilized to apply voltage to the sample liquid,

   wherein the facing distance is a minimum distance from the upper surface of the first or second electrode

to a portion of the second plate that faces the upper surface of the electrode.

4. The thin analysis tool according to Claim 3, wherein the facing distance is between 25 and 45 μm.

5. The thin analysis tool according to Claim 2, further comprising a first electrode provided on the first plate, and a second electrode provided on the second plate so as to face the first electrode, the second electrode cooperating with the first electrode for applying voltage to the sample liquid,

wherein the facing distance is a minimum distance between the first electrode and the second electrode.

6. The thin analysis tool according to Claim 5, wherein the facing distance is between 25 and 45 μm.

7. The thin analysis tool according to Claim 1, wherein the reaction space is constituted such that the sample is moved by capillary force.

8. The thin analysis tool according to Claim 1, wherein the reagent portion includes an electron mediator and a redox enzyme.

9. The thin analysis tool according to Claim 8, wherein the electron mediator is a ruthenium compound.

10. The thin analysis tool according to Claim 9, wherein the ruthenium compound is expressed by the following chemical formula (1):

$$[Ru(NH_3)_5X]^{n+} \quad \cdots (1)$$
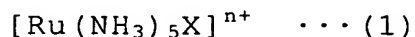
where X is NH_3, a halogen ion, CN, pyridine, nicotinamide, or H_2O, and n+ is the valence of an oxidized Ru(III) complex determined by a type of X.

11. The thin analysis tool according to Claim 10, wherein X in Chemical Formula 1 is NH_3 or a halogen ion.

12. The thin analysis tool according to Claim 8, wherein the redox enzyme has glucose dehydrogenation activity.

13. The thin analysis tool according to Claim 12, wherein the redox enzyme is a glucose dehydrogenation enzyme originating in microbes belonging to genus Burkholderia.

14. The thin analysis tool according to Claim 13, wherein the redox enzyme has an alpha sub-unit that has glucose dehydrogenation activity and whose molecular weight is approximately 60 kDa as measured by SDS-

38

polyacrylamide gel electrophoresis under reductive conditions.

15. The thin analysis tool according to Claim 14, wherein the redox enzyme has a cytochrome C whose molecular weight is approximately 43 kDa as measured by SDS-polyacrylamide gel electrophoresis under reductive conditions.

16. The thin analysis tool according to Claim 8, wherein the electron mediator is a ruthenium compound, and

wherein the redox enzyme is a glucose dehydrogenation enzyme originating in microbes belonging to the genus Burkholderia.

17. The thin analysis tool according to Claim 16, wherein the ruthenium compound is expressed by the following chemical formula (2),

wherein the redox enzyme includes: an alpha sub-unit that has glucose dehydrogenation activity and whose molecular weight is approximately 60 kDa as measured by SDS-polyacrylamide gel electrophoresis under reductive conditions; and a cytochrome C whose molecular weight is approximately 43 kDa as measured by SDS-polyacrylamide gel electrophoresis under reductive conditions;

39

$$[Ru(NH_3)_5X]^{n+} \quad \cdots (2)$$
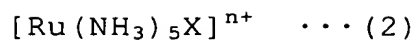
where X is NH_3, a halogen ion, CN, pyridine, nicotinamide, or H_2O, and n+ is the valence of an oxidized Ru(III) complex determined by a type of X.

18. The thin analysis tool according to Claim 1, wherein the sample liquid is a biochemical sample such as blood, urine, saliva, or a preparation thereof, the tool being constituted for performing analysis of glucose, cholesterol, lactic acid, or ascorbic acid.